

APPLICATION NO. 10/622606

OCTOBER 25, 2005

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CLMPTO

1. (Currently amended) A method of fabricating a monocrystalline or polycrystalline material over a substrate, comprising:

depositing a self-assembled monolayer (SAM) over the substrate;

depositing a layer over the SAM; and

substantially crystallizing the layer, whereby crystallizing the layer comprises annealing the substrate;

wherein the annealing is carried out at a temperature that is less than a strain point of the substrate.

2. (Cancelled) ~~A method as recited in claim 1, wherein the step of substantially crystallizing the layer further comprises annealing the substrate.~~

3. (Cancelled) ~~A method as recited in claim 2, wherein the annealing is carried out at a temperature that is less than a strain point of the substrate.~~

4. (Currently amended) A method of fabricating a monocrystalline or polycrystalline material over a substrate, comprising:

depositing a self-assembled monolayer (SAM) over the substrate;

depositing a layer over the SAM;

substantially crystallizing the layer; and

~~A method as recited in claim 1, wherein the material is a semiconductor.~~

5. (Original) A method as recited in claim 4, wherein the semiconductor is chosen from the group consisting essentially of: silicon, germanium and silicon-germanium.

6. (Original) A method as recited in claim 4, wherein the substrate is an oxide of the semiconductor.

7. (Cancelled) A method as recited in claim 1, wherein the layer is an oxide.

8. (Original) A method as recited in claim 1, wherein the SAM material comprises molecules, which have an order and spacing that substantially matches an order and spacing of a lattice of the material.

9. (Cancelled) A method as recited in claim 1, wherein the step of crystallizing the layer forms the polycrystalline the material.

10. (Cancelled) A method as recited in claim 1, wherein the step of crystallizing the layer forms the monocrystalline material.

11. (Currently amended) A method as recited in claim 19, wherein the polycrystalline material is polycrystalline silicon.

12. (Currently amended) A method as recited in claim 140, wherein the crystalline material is monocrystalline silicon.

13. (Currently amended) A method as recited in claim 91, wherein the SAM layer is a compound of $R-(CH_2)_N-Si-R'_3$, and the R' groups are cleaved during the providing of the SAM layer over the substrate.

14. (Currently amended) A method as recited in claim 401, wherein the SAM layer is a compound of $R-(CH_2)_N-Si-R'_3$, and the R' group are cleaved during the depositing of the SAM layer over the substrate.

CLAIMS 15-24 (CANCELLED)